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ABSTRACT

Few concepts in argumentation theory have produced as much discussion as the idea that argument practices can be divided into distinct public, technical, and private spheres. The first important question relating to the spheres concept is whether the distinction between the spheres is useful. The second primary issue concerns the degree to which technical reasoning has usurped the public sphere's power over decisions regarding technology. The third issue concerns how to solve the imbalance between public and technical decision making. Both require technical data and resolve issues by means of rhetorical processes. However, some issues can only be decided by experts, while others demand no expertise. It appears that the border between the public and technical spheres can be placed where argument data is no longer intelligible to an intelligent layman. The absence of focus on public policy reflects the fundamental stability of the system. Through competition among various groups, the work of the nation gets done. Argumentation theory should return to the field concept, with spheres viewed as general groupings of fields organized around the shared purpose of the activity in question. Theorists need to devise an explanation of how argument develops among the main actors in the public arena. (SG)

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Spheres of Argument: Academic Debate as a Mirror of the Overlap Between the Technical and Public Spheres

Paper presented at the 1991 convention of the Speech Communication Association in Atlanta, Georgia.

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Spheres of Argument: Academic Debate as a Mirror of the Overlap Between the Technical and Public Spheres

Few concepts in argumentation theory have produced as much discussion as the idea that argument practices can be divided into three distinct spheres. G. Thomas Goodnight's distinction between public, technical, and private spheres of discourse ("The Personal") has produced a wealth of research, including articles, papers at ALTA, and innumerable convention programs.

The literature focusing on the spheres concept can be viewed as clumping together around three main issues, all of which deal with the relationship between technical and public argument. First, a number of authors have disputed Goodnight's claim that public and technical reasoning are in fact significantly different. Second, the ethical claim at the heart of much of the work of Goodnight, as well as related research by Fisher, Rushing, and others, that the technical sphere has usurped the role of the public, also has produced controversy. The final issue concerns the degree to which problems in either the public or the technical sphere can be fixed by discourse-related solutions such as training in argumentation theory.

In this essay and a number of others (see Rowland, Voth and Brossmann; Rowland and Fritch) I have drawn on another insight from the work of G. Thomas Goodnight ("The Re-Union"), the notion that academic debate can serve as a

laboratory for testing controversies relating to a larger theory of argument. In the case of a theory of spheres the relevance of debate practice to the claims at issue should be obvious. Academic policy debate is designed to model the public sphere. Debaters and judges often act as if they are acting in the role of policy maker. Moreover, debate is often touted as a means of training our future public leaders (although this justification often causes active coaches to lose sleep at night when thinking about current and former debaters). Moreover, the process of debate closely mirrors the interaction of public and technical argument. In academic debate we often act as if we were public officials making decisions about the effect of technology on our society. Thus, we debate about biomedical research or recombinant DNA or the latest AIDS vaccine. In these instances the focus is both upon the scientific/technical data and upon how that data should influence public decision-making.

In the remainder of this essay, I want to consider what experience with academic debate tells us about the issues relating to the public and technical spheres that I identified earlier. In this regard I intend to focus in a somewhat anecdotal manner on the way that public and technical arguments were processed on the space topic. This topic obviously included issues relating to the public and science. It is also an appropriate topic to consider given

that it originally was suggested to the topic committee by Professor Goodnight.

The State of Debate About Spheres of Argument

Before moving to what the process of academic debate on the space topic tells us about the spheres concept, it is appropriate to sketch in a somewhat more developed fashion the main points at issue in what might be labelled "Spheres Theory."

The first important question relating to the spheres concept is whether the distinction on which the concept is based is useful. A number of authors have argued that there is in principle no necessary difference between the public and technical spheres. For example, Peters has argued that "all knowledge," not just that in the public sphere "can be seen as rhetorically negotiated" (30). Schiappa, operating from a "radical stance" as opposed to the traditional liberalism that he sees in Goodnight's formulation of spheres, claims that all discourse is "simultaneously personal and political" because it involves "power/knowledge relationships" (48). The argument here is that all argument is grounded in some form of community agreement (a power relationship) and therefore the supposed distinction between fuzzy, imprecise, value-laden public discussion and precise, value-neutral discussion within a narrow scientific community does not hold.

The second primary issue under dispute concerns the degree to which technical reasoning has usurped from the public power over political decisions regarding technology. On this point, Farrell and Goodnight noted the failure of the public sphere to fend off encroachment from technicians in making decisions about nuclear power. Fisher has made much the same point about our discussion of nuclear weapons. And a plethora of other critics seem to agree that the increasing dominance of technological reasoning has decreased the capacity of average citizens to control public decisions. In a number of essays I have questioned this viewpoint, arguing that there is little sign of technical control over public decision making (see for instance "The Relationship"; "A Reanalysis"). In fact, I have pointed to a number of instances in which the public sphere acted without input from technical experts and consequently produced disastrous results.

The third issue concerns how an imbalance between public and technical decision making concerning technology might be solved. On this point, some have argued that rhetorical and argument critics might serve in the role of knight errant for society. By jousting with technical experts, the critic could expose to public view the underlying strengths and weaknesses of technical arguments (see Dauber). An additional alternative is to feature training in argumentation and debate as a means of producing skeptical citizen-arguers.

The process of debate about space policy bears on each of these issues. Clearly, that topic encompassed both scientific and policy argument. If there is a fundamental difference between the two then that difference should be apparent. For similar reasons the topic can function as a good means of testing whether the public sphere has been dominated by scientific reasoning. And the practice of debate on the topic clearly bears on whether rhetorical/argument criticism may be the solution to any conflict between technical and public reasoning.

What Debating About Space Tells Us About Spheres of Argument

Initially, a year's experience with debating about space policy reveals that there are similarities in the argument practices found in technical and public decision making about the issue. Clearly, technical data is used in much public argument. This is most obvious in the wide public literature concerning the efficacy of space-based missile defense systems, but also can be seen in the literature on other issues relating to space policy. Additionally, in both the technical and public spheres, arguments are resolved via a rhetorical process. The theory that scientific argument is resolved based on a purely objective process is not correct. Rather, in science the advocates of competing positions utilize rhetorical strategies for selling their positions, just as advocates do in the public sphere. This process was quite obvious in the

"scientific" debate about nuclear winter. Finally, values matter in both technical and public argument. Much of the conflict at the heart of debate over the Gaean hypothesis can be viewed as conflict about the sorts of values that "real" scientists ought to hold.

While there clearly are commonalties between the argument practices found in public and technical argument about space policy, there also clearly are differences. Initially, there are many issues on which only experts are in a position to make a judgment. If debate about missile defense comes down to a question involving the potential efficacy of computer software programs for controlling the defense system, then only sources with a certain level of expertise can speak to the issue. I admit that it is difficult to identify what precisely is meant by "expertise." At the same time, there clearly is a difference between an issue such as the software question and a more general issue involving strategic doctrine. On strategic doctrine, there are no experts whose views should be privileged. In a sense, we are all experts. On the other hand, on software adequacy it makes sense only to listen to people who have credentials of some sort.

A similar point could be made about any number of other issues that we debated about on the space topic. On the value of generating knowledge from space astronomy there are no experts to be privileged. But on the potential efficacy of the Hubble Space Telescope expertise did matter. It

would appear that the primary difference between the public and technical spheres concerns the degree to which all auditors as opposed to a limited group can serve as reasonable sources/evaluators on a particular issue. If special expertise is required then the issue fits within the technical sphere.

Clearly, the two spheres still overlap. Scientists often talk about value-laden issues that are the province of the entire public. And members of the public sphere are forced to weight conflicting accounts of scientific practice. But these points of overlap do not deny a fundamental difference between the two spheres of discourse.

The question then becomes one of determining where the border between the public and technical spheres lies. This border identification is not merely a semantic issue. Border incursions, either from science in usurping the role of the public or from the public in utilizing wishful thinking as a means of testing scientific issues, can be dangerous. It appears that the border between the public and technical spheres can be placed at that point where the data in argument practices is no longer intelligible to an intelligent layperson. An intelligent person can process the information available on space junk or even SETI. But that person, absent special expertise, cannot process a claim regarding the adequacy of software programs for space-defense systems.

The debate over space policy also is revealing in relation to the degree of border conflict between experts and the public. From the vantage point of space policy, the claim that the experts have usurped the role of the public seems ludicrous. Initially, debate about public policy regarding space clearly has not been controlled by the experts. Over the course of the season it became clear that, on the majority of issues concerning space policy, interested debaters were able to process the information available in order to make reasonable claims about space policy. If intelligent debaters can do this then so can motivated and intelligent members of the general public

In addition, it is obvious that space policy has not been controlled by the experts. Many experts are quite dubious about the value of the shuttle and the space station. These experts argue that an unmanned largely scientific space program would be far more cost-effective than the current program emphasizing humans in space. Yet these activists have been all but ignored. An even stronger indication of the lack of power of the "experts" is obvious in the debate about "Star Wars." It was not the technical elites that pushed us into the development of missile defense programs. Rather, it was the ultimate non-expert, Ronald Reagan, who persuaded the country about the value of such a program. The role of the public definitely has not been diminished in discussion about space policy.

On the contrary, space policy shows signs of harm based on the opposite border incursion, public decision making on purely technical issues. There are any number of cases involved in space policy where representatives of the public sphere have made policy decisions, based on a view of technical issues, that only can be referred to as based on wish-fulfillment. The Hubble space telescope is a perfect illustration of this point. On the surface the failure of the Hubble might be viewed as a representative example illustrating the failure of technical reasoning. After all, the Hubble now might be thought of as the world's largest optical object in need of Windex. But this terrible failure in public policy can be traced not to a failure in technical reasoning, but to the decision by representatives of the public to ignore the demands of technical reason. The Hubble is in its current position, because representatives of the public sphere rejected the conclusions of the technocrats that a strong quality control program was needed to guarantee that the optics in the Hubble would work as planned. Based on technical reasoning, the space scientists knew that the mirror needed to be carefully checked with the best available technology. The public decision makers decided that such an act was an unnecessary expense. Wishing that the Hubble mirror would be perfect did not make it so.

A similar point could be made about the design process for the space station and the shuttle itself. Over time,

political demands forced major changes in each of these systems. The result has been to produce terrible designs. The problems in these designs, however, again proves not that technical reasoning fails, but that ignoring technical constraints in order to achieve a political objective, often leads to disaster.

Of course there is danger that technocrats will usurp the role of the public. But we need to recognize the role generally played by scientists and technicians in our society. Only rarely do these people take the part labeled "policy decision maker." In most cases they appear as supplicants before decision makers in search of support of one kind or another. And when they appear, they often are opposed by other experts, thus reducing the danger of elite domination. The most important danger illustrated in space policy concerns problems that may be created when a non-expert attempts to make (or wish for) a decision on a purely technical issue.

I will always remember a very young Griffin Vincent explaining to me that space colonies could not work, because one cannot "hammer in space." While Griffin was kidding, a number of our most important policies relating to space seem to have been decided based on grounds similar to his comparison of space development to carpentry. Is it any wonder that our space program has suffered major setbacks in the last few years?

The third issue concerns the degree to which discourse practices of some kind might be used to resolve any conflicts between the public and technical spheres. At one level, debate training clearly supports the optimistic judgment that training in rhetoric and argument can help citizens make better decisions. Over the course of the debate season, debate practices developed through an evolutionary spiral in which more and more sophisticated arguments were created. The arguments found in March bore little resemblance to those found in September. Thus, the debate process appears to have been successful in training skilled "public" advocates for dealing with an issue possessing all sorts of technical overtones.

At a second level, however, the judgment is not so clear. Debaters were able to process the complex information concerning space exploration and development because they possessed both the motivation and the time to deal with that information. It seems unlikely that ordinary citizens, even those who have been trained in informal logic, will be able to reach a similar level of expertise.

It is not that ordinary citizens cannot process the information necessary to rationally discuss most of the issues relative to space policy. Most debaters on the space topic lacked training in advanced astronomy, physics, or mathematics. Nor is the problem that experts completely control the agenda, thus preventing citizen influence over public policy. In fact, there is rarely expert consensus on

issues of public policy. No one group of technocrats controls anything. Rather, there are competing positions from within the technocratic (expert) community that vie for public support.

The problem is, therefore, not lack of information, not lack of expertise, and not lack of access to the political process. The primary problem is lack of interest.

The fact that the public lacks interest and therefore does not actively participate in decisions on issues like space policy might appear to be indicative of fundamental failure in our democracy, but in reality it proves exactly the opposite, the strength of our system of making decisions about technology. Some theorists of the public sphere seem to desire a society in which citizens spend all of their waking hours focusing on debates over public policy. In reality, most average people are too busy with the stuff of ordinary life to focus on anything but truly crucial political decisions. If the issue is whether Clarence Thomas should be confirmed to the Supreme Court there will be public interest. If the issue is whether NASA should use solid or liquid rocket motors there is little or no interest.

The absence of focus on public policy should be seen as a sign of the fundamental stability of our system. Ordinary people do not focus on issues such as space policy, because in general the system works. Through the competition among various interest groups, business, scientists, and so on,

the views of the people are represented and the work of the nation gets done. In cases of crisis, the public becomes involved directly. In all other cases, the public remains a slumbering giant, waiting to be awakened by a fundamental failure in decision making. Of course the process of making public policy about technology has been flawed, but it still has been enormously successful. Winston Churchill's famous comment that democracy is the worst system, except for all the others, surely is appropriate here.

Conclusion

In sum, the analysis of debate on the space resolution brings into focus key issues relating to a theory of spheres. While there are similarities between technical and public argument, there are still basic differences between the two activities. These inherent differences mean that the spheres concept can serve a somewhat useful function as a descriptive device.

However, the view that technocratic oppression threatens to deny the democratic rights of the people seems less supported. The public has had plenty of opportunity to influence space policy via the political process. Members of the public often have not exercised those opportunities, but they still have been present. And even though the public has not directly acted to influence space policy, the views of the public have been represented by a variety of

interest groups (as well as political leaders) concerned with the issue.

In fact, rather than technocratic oppression, debate about space policy reveals a dangerous tendency toward wishful thinking. Many of our political leaders seem to believe that general standards of ordinary argument will suffice in even the most technical area. The net result has been to make decisions that ignore the specific constraints provided by technical questions involved in space policy. Perhaps there were valid reasons to conclude that a double-check of the mirror of the Hubble Space Telescope was redundant. It is just that when the Windex bottle is somewhat hard to get to (being on earth, while the telescope is hundreds of miles above in space) it would have made more sense to listen to the experts and conduct the "unnecessary" double-check.

Debate training certainly seems to provide the skills needed by citizens when confronting argument in a technical area such as space policy. At the same time, the lack of consideration of the issue in the public sphere seems to be tied more to public lack of interest than to lack of knowledge. Debate training works so well for debaters, because of their great motivation. Absent such motivation, discourse related solutions are less likely to fundamentally alter the way we discuss public policy.

My final conclusion relates to argumentation theory. The spheres concept originally was proposed as an

alternative to field theory. I suggest that our work with it suggests that the theory of argument spheres is not an adequate replacement for a theory of argument fields. The problem is that the spheres concept is too general. There are many points of similarity between the public and technical spheres and the differences that exist seem to depend upon the particulars of the area in question. In other words the fields concept is too general to serve as an adequate replacement for the specificity provided by a theory of fields.

I suggest that spheres of argument should be viewed as general groupings of fields, organized around the shared purpose of the activity in question. The public sphere is organized around the general societal purpose of democratic problem-solving. The technical sphere is organized around knowledge creation. And the personal sphere is organized around personal fulfillment. Thus, spheres of argument are simply large groupings, containing any number of more specifically defined argument fields.

The foregoing suggests the need for twin developments in argumentation theory. First, we need to return to the field concept as a more precise (and therefore more useful) approach for charting similarities and differences among arguments found in different areas. It is the interaction of purpose and field subject matter that creates constraints leading to the creation of the remaining argumentative components of a particular field. Studies built on this

approach to field theory can more precisely define the argumentative characteristics of different technical (and public) activities.

Second, we need to create theory explaining how argument develops among the main competing actors within the public arena: the media, interest groups, scientists, the military, business, and the public itself. Such a theory should attempt to explain how and why we have made bad choices relating to technology, not simply by blaming technocratic elites, but by balancing the needs of all involved.

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